has been great. More change may occur, but the rate of change has slowed. Travel demand nationally continues to rise because today's 20-year olds make more trips than those of past generation (and young females have increased their trip-making to equal that of males), while those of 65 and older likewise make more trips (and today's older females, unlike those of the past, are making nearly as many trips as older males).

Travel by persons of low income. Those with lower incomes typically travel less and own fewer vehicles. But as vehicles have become more ubiquitous, used vehicles have become increasingly available; with average vehicle ages going up, used vehicles can be more affordable. While the number of those who are poor may not be falling, the proportion of the U.S. population with access to a vehicle has been growing, and more travel by car is likely. As greater proportions of the lower-income populace come to own cars, there is likely to be some decline in carpool use, in transit patronage, and in pedestrian travel. Overall, though, as car ownership by those with lower incomes rise, the result will be greater demand for travel.

Summary Effects on Travel Patterns

While some social and economic changes are having less effect on travel demand, other influences still apply. Rising levels of travel are to be expected. The rate of increase may not continue growing, and past patterns of explosive demand in Sunbelt metro areas may not be repeated, but the average person in future years is likely to travel more, unless constrained by environmental problems, finances, or road capacity, or attracted by transportation substitutes such as telecommuting.[2]

Trends in Freight Activity and Initial Impacts of NAFTA

The long-term trends in freight transportation activity are characterized by continued growth. Part of the growth is due to general economic liberalization within Mexico as a result of its joining The General Agreement on Tarrifs and Trade (GATT), passage of the U.S.–Canadian Free Trade Agreement, and implementation of the North American Free Trade Agreement (NAFTA). NAFTA is the most recent, and has particularly significant potential impacts on the U.S. domestic transportation. Some elements of the NAFTA treaty took effect the first day of 1994, while other aspects will be phased in during 1995. Any transportation consequences of NAFTA are therefore quite preliminary, but certain effects were discernible during 1994. The overall effects of NAFTA can be grouped into three classes: (1) those that result from changes in the rules and regulations applying to trade; (2) those that are a result of changes in access to the territory of other countries; and (3) those that result from changes in rules and regulations applied to vehicles and operators when transporting within one of the countries.

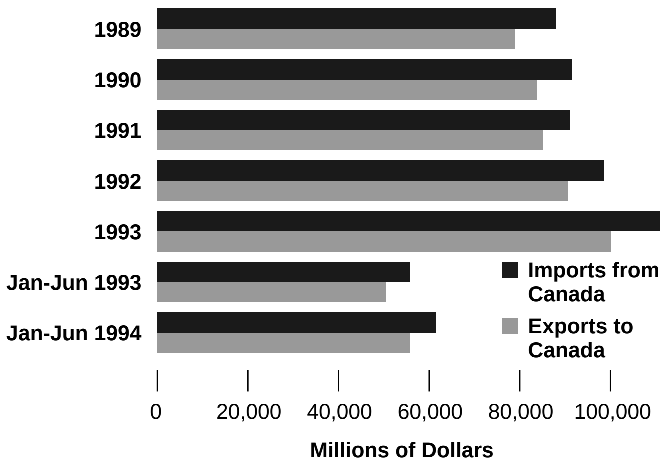
It is the first class of impacts, occurring from changed rules and regulations, which began to affect trade and transportation among the three trading partners on January 1, 1994, the beginning date for NAFTA. Reductions in tariffs applied to goods traded between Canada, Mexico, and the United States started to phase in on that date. In December, 1995, effects of the second sort will apply, as U.S. carriers are given access to Mexican border states and Mexican carriers are given similar access for international shipments to U.S. border states. Eventually, all of the U.S. and Mexico will be open to international movements by carriers of both nations.

As to impacts of the third class, foreign operators and vehicles operating in another nation must adhere to the rules and regulations of that nation (such as truck size and weight laws). The three trading partners retain their sovereign rights over licensing, operating, and safety laws to protect their citizens. However, NAFTA does establish mechanisms to harmonize rules and regulations among the three nations. Harmonization discussions are proceeding, and as agreements are reached and implemented, transportation consequences may occur depending on the results of ongoing negotiations.

In NAFTA's initial months, only effects of the first class could be expected, and given the short period of time since passage, few of these have taken place. Trends and changes from past relationships are only suggestive of what is likely to occur

FIGURE 1–7

United States Trade with Canada: 1989–1994



over the next few years, but it is informative to compare the first few months after NAFTA to pre-NAFTA conditions.

Growth in North American Trade

Two-way trade between Canada and the U.S. grew moderately from 1989 to 1992, rising from $166.5 billion to $176.2 billion. (See Figure 1–7.) The moderate rate of growth was due in part to general economic sluggishness through 1992. Growth in 1993 showed a strong advance of 11.9 percent. This rate of growth continued into the first six months of 1994, during which imports increased 10.1 percent over the comparable period in 1993 and exports increased 10.5 percent. Throughout the total period, there was a relatively steady negative U.S. balance of trade. Based upon these data, trade with Canada, post-NAFTA, appears to be very similar to pre-NAFTA.

Mexican trade demonstrated a higher growth rate in the pre-NAFTA years than did Canadian, largely as a result of changes in the terms of trade brought about by Mexican acceptance of GATT and from the economic liberalization policies of the Salinas administration. The United States had been running a trade deficit with Mexico, but in 1991 the balance of trade shifted in favor of the United States. The post-NAFTA trade figures for Mexico show substantially higher rates of growth than for Canadian trade. U.S. exports to Mexico rose 16.4 percent in the first six months of 1994, compared to the same period in 1993, and imports rose 20.5 percent. (See Figure 1-8.)

Modal Shares

For both Canadian and Mexican trade, the land modes have been, and remain, the dominant means of transporting freight.

Trade with Canada shows a recent, post-NAFTA increase in the share of traffic moved by the land modes. Although the land modes were dominant over the entire period, the share of trade using land modes fell from 91.1 percent in 1989 to 88.1 percent in 1993. Air and water, meanwhile, both increased their traffic shares. However, in the last six months, the land modes gained market share at the expense of water. (See Figure 1–9.)

Trade with Mexico depends on the land modes, which had risen from 85.3 percent to 87.7 percent of the total by 1993, and rose further to 88.3 percent for the first half of 1994 (again, measured in value terms). The results mean the land transport share of Mexican trade is just about the same as the Canadian land share (which was 89.4 percent for the first six months of 1994). Air has also gained a larger share of trade in Mexico, rising from 2.6 percent to 3.8 percent by 1993, and continuing its increase in market

FIGURE 1–8

United States Trade with Mexico: 1989–1994

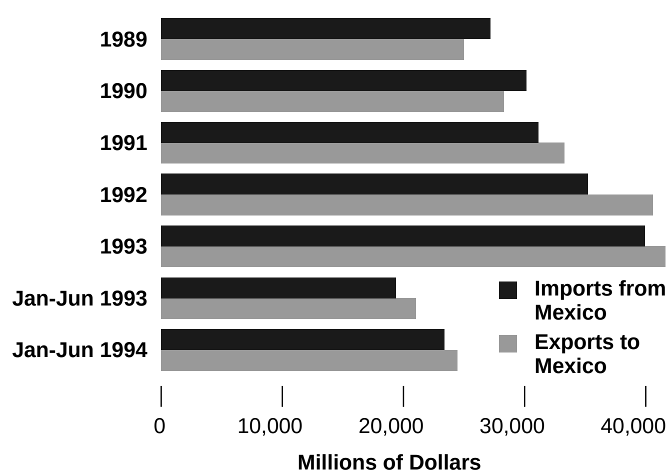


FIGURE 1–9

Modes of Transportation Used by Canadian International Shippers

share during the first six months of 1994. The water modes had fallen from 12 percent to 8.5 percent by 1993, and fell even further in 1994. These post-NAFTA impacts appear likely to increase demands on the land border crossings with Mexico. (See Figure 1-10.)

Composition of Trade

Export and import trade by commodity between the U.S. and Canada remained relatively stable over a three-year period prior to 1992–93. Such stability is to be expected given that the terms of trade between these nations also remained quite constant. (See Figures 1–11 and 1-12.)

The composition of trade with Mexico has also remained relatively stable. The major trend has been the increasing importance of manufactured imports to the U.S. Given that many of the manufactured commodities are likely to be produced by maquilla industries, most of which are located near the U.S.-Mexican border, and that these commodities use land transport predominantly, most transportation demands and problems associated with NAFTA implementation in Mexico are apt to be border related. (See Figures 1-13 and 1-14.)

Regional Patterns of Trade

Information on origins or destinations of U.S. trade is subject to errors in reporting and interpretation, necessitating that care be taken when discussing the data. Nonetheless, one can provide a general characterization of the geographic patterns of exports and imports to help in visualizing the domestic transportation implications of the trade.

Land Trade by Border Crossing

Many of the transportation issues arising from trade with Canada or Mexico are associated with congestion and delays at critical land border crossings. The reasons for this are evident, since the land modes continue to carry the bulk of the trade. To the extent that trade composition is changing, it seems to be shifting further toward goods that generally move by truck or rail. Further, the trade origins and destinations continue to focus the flows through several major gateways. Few states dominate trade between the U.S. and Canada. This trade is concentrated in the industrialized Northeast and Midwest, California, Washington, and Texas. To date, NAFTA has had little impact on the geographic patterns of trade.

FIGURE 1–10

Modes of Transportation Used by Mexican International Shippers

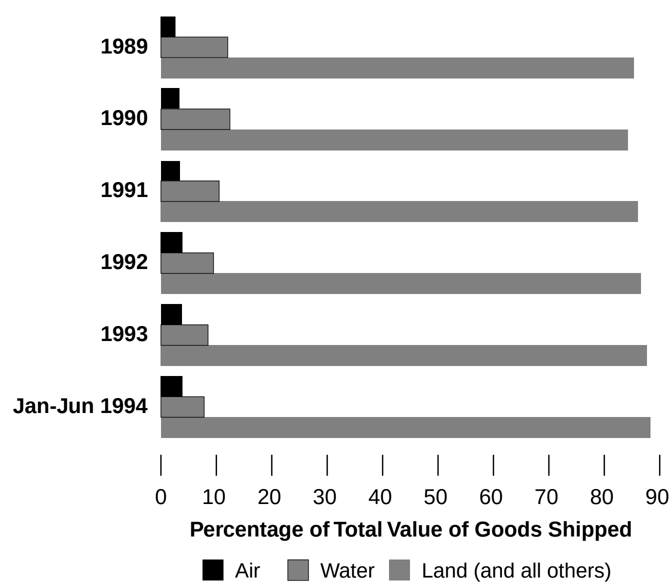


FIGURE 1 – 11

Canadian Exports by Commodity

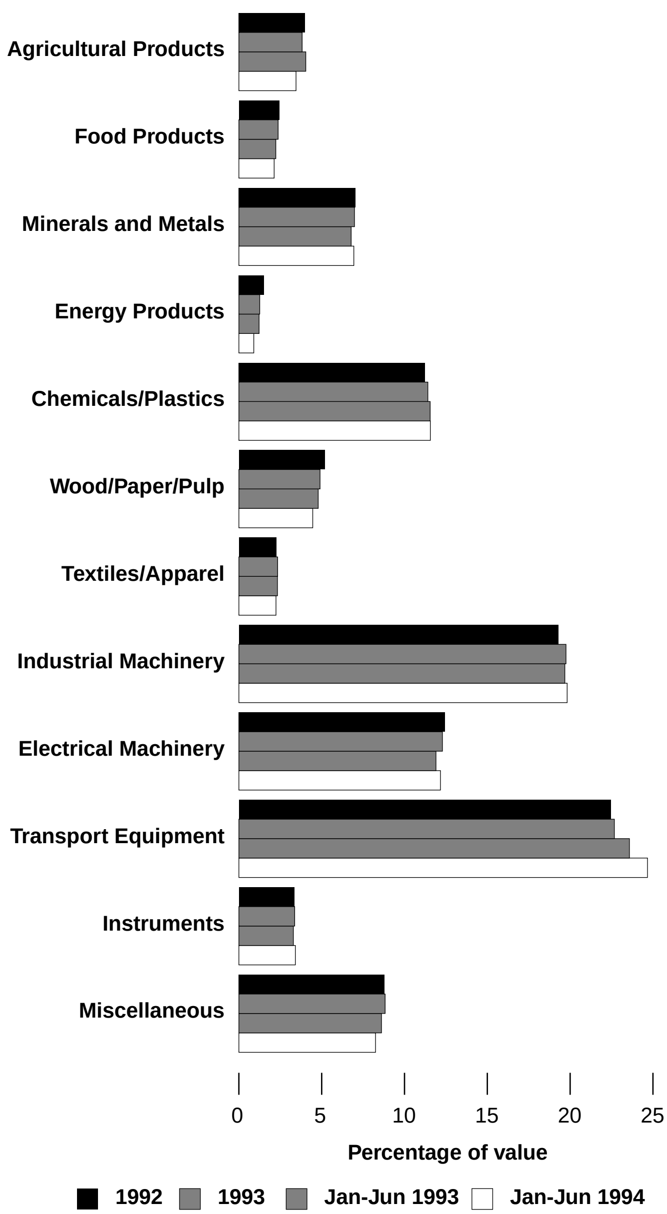
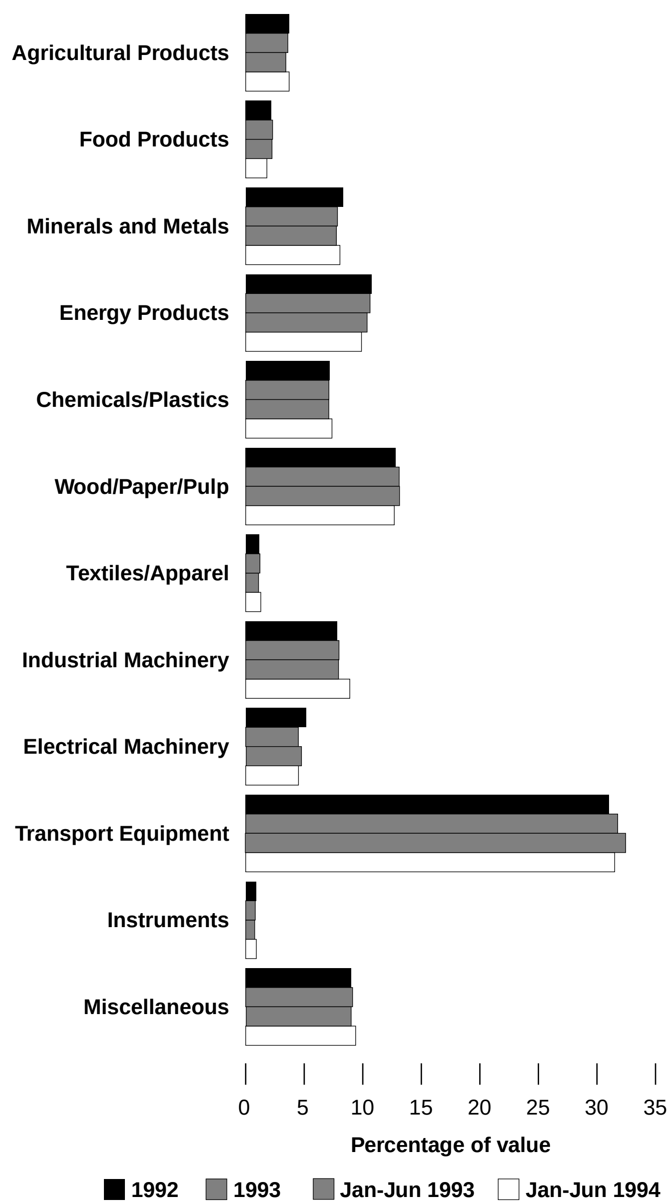


FIGURE 1 – 12

Canadian Imports by Commodity



U.S.-Mexico trade is also concentrated among a small number of states, notably Texas and adjacent southwestern states. The degree of concentration is even greater with Mexican trade than with Canadian.

The northern border is interesting in that it shows increasing proportions of trade through the Michigan crossings (already the busiest land crossings). Along the southern border, Laredo continues to be the major gateway for exports to Mexico, while imports are distributed more evenly across the major gateways. However, no changes in border-crossing trends, such as switching from one gateway to another, are obvious from the limited post-NAFTA data available.

Summary Effects

It is too early to make definitive comparisons of the pre- and post-NAFTA trade situation, or to draw strong conclusions

FIGURE 1–13

Mexican Exports by Commodity

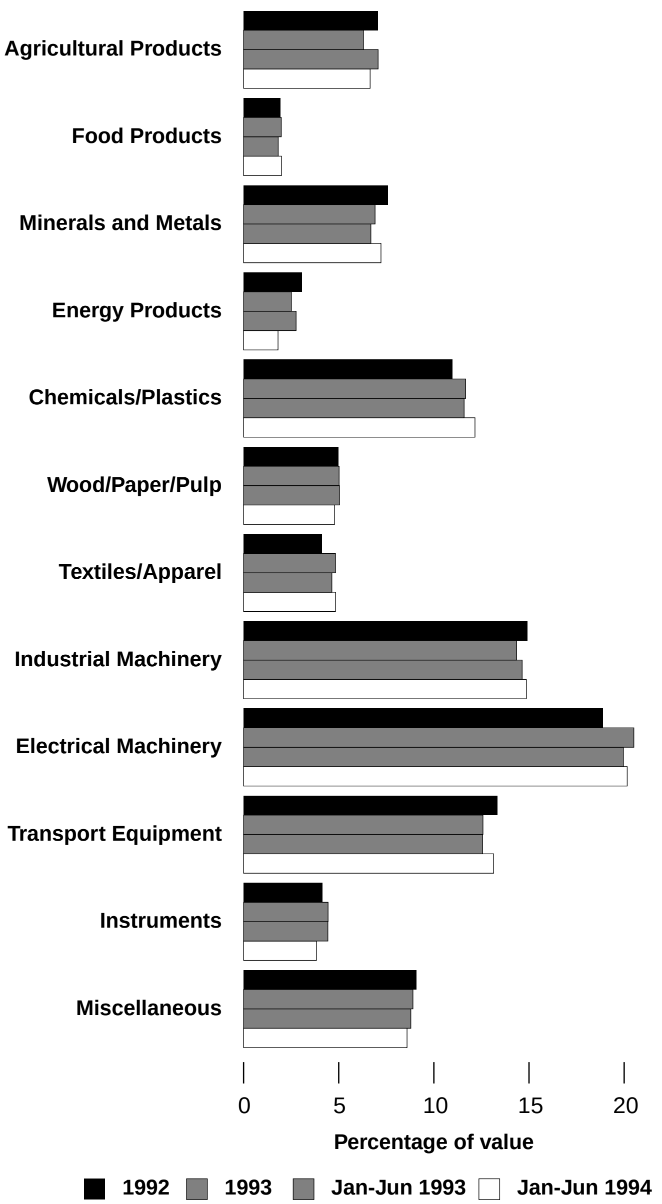
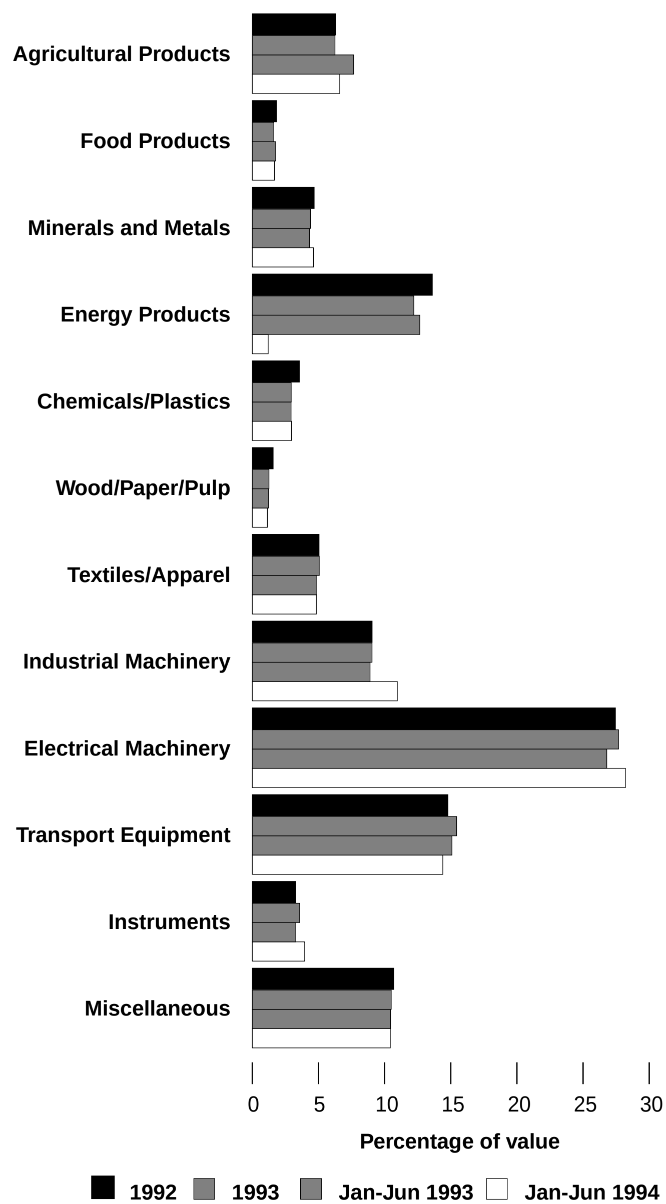


FIGURE 1–14

Mexican Imports by Commodity



about the transport impacts. However, the available data should be reassuring to those planning for future impacts. As expected, trade among the three North American partners has increased, but the geographic patterns and commodity compositions of the trade are still similar enough to those of the recent past that near-term transport needs can be anticipated. These transportation needs are likely to result from the continuing growth in *total* trade through today's major ports and from the opening of U.S. and Mexican border states to international traffic that will occur in December, 1995. As these gains in trade are anticipated, the transportation industry is preparing to serve the new traffic.